

EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER : 03275973
 PUBLICATION DATE : 08-12-91

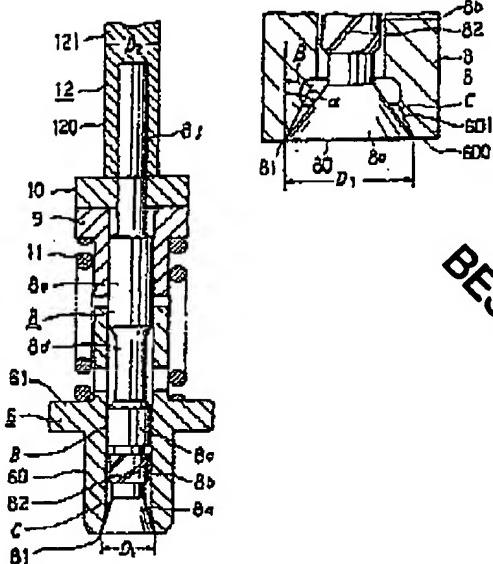
APPLICATION DATE : 23-03-90
 APPLICATION NUMBER : 02071986

APPLICANT : ZEXEL CORP;

INVENTOR : KURODA YOSHIO;

INT.CL. : F02M 51/06 F02M 61/08

TITLE : SOLENOID FUEL INJECTION VALVE



BEST AVAILABLE COPY

ABSTRACT : PURPOSE: To prevent carbon from being attached to an injection hole portion by means of simple constitution of a solenoid fuel injection valve and enhance the flow rate property of the valve by sheeting the end of the conical valve portion of a poppet valve with an edge at the end of the inside diameter of a valve body, and making the outer end face of the conical valve portion the same as that of the valve body, and also providing a swirl channel and an amount regulating portion in respective portions on the upper side of the conical valve portion.

CONSTITUTION: While a solenoid fuel injection valve is open, fuel is allowed to pass through an amount regulating portion 8c, a swirl portion 8b and a ringshaped space between a valve portion conical surface and a body side conical inner wall 601 and is sprayed in a combustion chamber. Because the amount regulating portion 8c is the narrowest fuel space B between a tubular portion 60 and the inner wall, a predetermined amount of fuel flow restricted by the space B is forced to flow downward and the amount of fuel flow regulated is given a swirl flow when passed through the channel 82 of the swirl portion 8b. Since the swirl flow is generated on the lower side of the amount regulating portion, its flow velocity would not be lowered but the fuel is sprayed while being turned by the area of an injection hole decided by a space in the form of a taper ring between the valve portion conical face and the body side conical inner wall 601 and is broadened by centrifugal force and finely dispersed. Thereby atomization is good and passing forces are reduced and a good dispersion property of the fuel is obtained.

COPYRIGHT: (C)1991,JPO&Japio